

Please read these instructions carefully before beginning assembly. Failure to understand and follow assembly instructions may result in injury to assembler and/or end user and may void the warranty. If you have any questions call Sunrise Medical Technical Support at (800) 333-4000.

Actuator parts:



A. REMOVE LIFT ACTUATOR:

1. Remove the 4 screws holding the rear shroud (Fig 2). Remove shroud and save the hardware. (Use 3mm hex key) 2. Unplug Molex connector between the lift actuator and lift harness it connects to. Note the position of the heat shrinked circuit board. The board will need to be fastened to the same location. (Fig. 2 Lift Actuator)

3. Before step 4, unplug any cabling between the upper seat and base that could get damaged during step 4.





DEALER/TECHNICIAN WARNING

Attention dealers and qualified technicians, do not operate or service this device without first reading the owners manual. If you do not understand the instructions and warnings in the owners manual please contact the Quickie Technical Service Department before operating and/or servicing the Quickie device. Failure to do so may result in damage and/or iniury.

Find more information and important warnings see the wheelchair owner's manual or at: www.Sunrisemedical.com.

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A. REMOVE LIFT ACTUATOR(Continued):

- 4. Remove the 4 screws holding the seat to the adapter plate and remove the seat (Fig. 1). (Use 5mm hex key) Save the hardware. NOTE: before removing the seat, mark the mounting hole locations for the seat and adapters
- Serve the 4 adapter plate screws and adapters from the combo module. Again, mark the hole locations before removing the adapter plates from the combo module and save the hardware. (Fig 1). (Use 5mm hex key)
- 6. Remove the six screws(3 per side) that hold the combo module to the base interface. Mark the mounting hole locations between the combo module and the base interface. Save the hardware (Fig 1). (Use 5mm hex key)
- 7. Remove the combo module from the base interface and place it on a solid surface. Preferably a work bench.
- 8. Partially tilt the tilt actuator to allow access to front of tilt actuator. This can be done by direct power (12 volts) to the six pin Molex connector on the tilt actuator (Fig 3).
- 9. Disconnect the front of the tilt actuator by removing the front pivot pin (B) and cradle with a 3mm hex key (Fig 5 & 9). This will allow you to freely articulate the tilt actuator. Save the hardware.
- 10. Articulating the tilt actuator up will allow you access to the front of the lift actuator.
- 11. With access now to the front of the lift actuator, disconnect the front of the lift actuator by removing the front pivot pin (B & F) and cradle with a 3mm hex key. Discard the pin(Fig 10)
- 12. Articulate the front of the lift actuator up and that should allow you to access the rear of lift actuator. Remove E-clip (E) from the rear pivot bolt (A) using pliers (Fig 8). Then remove the pivot bolt and discard old hardware.
- 13. Remove the lift actuator from the combo module. If under warranty, return to Sunrise Medical. Otherwise discard.



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B. ASSEMBLE NEW LIFT ACTUATOR:

- 1. Assemble new lift actuator into combo module. Use new mounting hardware included with the actuator.
- 2. Insert new bushings (D) into front and rear mount of lift actuator. (Fig 7 & 8) Slide new rear pivot bolt (A) into the
- rear combo module mount and rear lift actuator mount. Secure new E-clip (E) with pliers. (Fig 8)
- 3. Assemble the front of the lift actuator into the front of the combo module mount. Secure with new pivot bolt (B & F) and existing cradle. (Fig 7 & 10) (Use 3mm hex key). Torque to 27-32 in-lbs....
- 4. Now reassemble the front of the tilt actuator into the front of the combo module mount for the tilt. Reuse the existing hardware. Secure with pivot bolt (B & F) and cradle. (Fig 5 & 9) (Use 3mm hex key) Torque to 27-32 in-lbs......
 5. Assemble the complete tilt/lift combo module back on to the base interface. Secure with the six screws
- (3 per side) saved from step 6 of section A. (Fig 1) Note the mounting hole locations marked from step 6 of section A. (Use 5mm hex key) Torque to 60-70 in-lbs.
- 6. Reassemble the adapter plates to the top of combo module. Reuse the hardware saved and note the mounting holes marked from step 5 of section A. (Fig 1) (Secure with 5mm hex key) Torque to 60-70 in-lbs.....
- 7. Reassemble the seat on top of the adapter plates. Reuse the hardware saved and note the mounting holes marked from step 4 of section A. (Fig 1) (Secure with 5mm hex key) Torque to 60-70 in-lbs.....
- 8. Using cable ties, connect actuator all harnesses as shown in Figure 12 & 13. Ensure that heat shrinked circuit board shown in figure 11 & 13 is in the small area between the actuator and the module frame.
- 9. Reassemble the rear shroud (Fig 3). Re-secure the shroud with the hardware saved from step 1 of section A. (Use 3mm hex key) Torque to 27-32 in-lbs.



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C. REMOVE TILT ACTUATOR:

- 1. The first seven steps in removing the tilt actuator are the same as the steps for removing the lift actuator. See section A and follow the first seven steps before proceeding to step two of this section.
- Lift the lift actuator to it's up position to allow better access to the tilt actuator. This can be done by direct power (12 volts) to the 6 pin Molex connector on the lift actuator (Fig 3).
- 3. Disconnect the front of the tilt actuator by removing the front pivot pin (B & F) and cradle with a 3mm hex key (Fig 5 & 10).
- 4. Once the front mount is free, this will allow you to freely articulate the tilt. Cut any zip ties securing tilt actuator harness to the combo module.
- 5. Remove the rear tilt actuator pivot pin (C), by removing the two E-clips (E) with pliers. Discard hardware. (Fig 6)
- 6. Remove the tilt actuator from the combo module. If under warranty, return to Sunrise Medical. Otherwise discard.

D. ASSEMBLE NEW TILT ACTUATOR:

- 1. Assemble new tilt actuator into combo module. Use new mounting hardware included with the actuator.
- 2. Insert new bushings (D) into front and rear mount of tilt actuator. (Fig 5 & 6) Slide new rear pivot bolt (C) into the rear combo module mount and rear lift actuator mount. Secure new E-clips (E) with pliers. (Fig 6)
- 3. Assemble the front of the tilt actuator into the front of the combo module mount. Secure with new pivot bolt (B & F) and existing cradle. (Fig 5 & 9) (Use 3mm hex key) Torque to 27-32 in-lbs
- 4. Route the actuator harness as shown in Figure 14 & 15. Be sure to secure the harness with cable ties as shown. Reconnect the molex connector between the lift actuator and the molex harness.
- 5. Assemble the complete tilt/lift combo module back on to the base interface. Secure with the six screws (3 per side) saved from step 6 of section A. (Fig 1) Note the mounting hole locations marked from step 6 of section A. (Use 5mm hex key) Torque to 60-70 in-lbs.
- 6. Reassemble the adapter plates to the top of the combo module. Reuse the hardware saved and note the mounting holes marked from step 5 of section A. (Fig 1) (Secure with 5mm hex key) Torque to 60-70 in-lbs.....
- 7. Reassemble the seat on top of the adapter plates. Reuse the hardware saved and note the mounting holes marked from step 4 of section A. (Fig 1) (Secure with 5mm hex hey) Torque to 60-70 in-lbs.....
- 8. Reconnect the molex connector between the tilt actuator and the molex harness. Also reconnect any other cabling that had to be disconnected during step 2 & 3 of section A for the tilt. Verify to route all harnesses to their original position, and fasten them as they are shown in Figure 2A and 2B (Tilt Actuator)
- 9. Reassemble the rear shroud (Fig 3). Re-secure the shroud with the hardware saved from Step 1 of section A. (Use 3mm hex key) Torque to 27-32 in-lbs.



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E. HARNESS TRACK ROUTING INSPECTION:

1. Verify the Bus harness and the module harness are routed as shown in Figure 16. The bus harness should be routed on the left of the module harness. Verify that cable ties are still securing the harnesses in the track, as shown in Figure 17.

2. Verify the bus harness is approximately 6" from the edge of the track as shown in Figure 18. The module harness and the bus harness should be cable tied near the edge of the track and near the bus connector.

3. Verify that the tilt lead is secured with a cable tie, as shown in Figure 19 & 20.



E. FINAL INSPECTION:

- 1. All torque values with a torque wrench.
- 2. Seating system to ensure all wire harnesses are out of the way and are not getting pinched.
- 3. Seating system to verify that the harnesses are not put under tension in any position.
- 4. Ensure that the cable-ties are not so tight that they deform cable jackets.
- 5. Where possible cables should be protected and hidden by shrouds.

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